DOCUMENT RESUME

ED 175 157 EA 012 070

AUTHOR Cresswell, Anthony M.; And Others
TITLE Budgeting and Bargaining Interactions in School Districts: An Ethnoscientific Approach to Field Research.
PUB DATE Apr 79
NOTE 38p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, California, April 8-12, 1979)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Administrative Personnel; *Budgeting; *Collective Bargaining; *Decision Making; Elementary Secondary Education; Ethnography; *Interaction; Interviews; *Power Structure; Research Problems; *Resource Allocations; School Districts; School Superintendents; Teacher Administrator Relationship; Teacher Salaries
IDENTIFIERS Ethnoscience; Illinois

ABSTRACT

Budgetmaking and bargaining are central resource allocation processes in schools; this study examines how they affect one another. Ethnoscientific techniques were applied in nine Illinois school systems. The results were analyzed to show the flow of the decision process and construction of detailed plans of action. The structure and power relationships among the actors were explored. The results show that interaction between these processes depends on the power relationships between unions and management and on the political and economic environment. A detailed description of the process and questionnaire were developed. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED175157

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Budgeting and Bargaining Interactions in School Districts:

An Ethnoscientific Approach to Field Research

Anthony M. Cressw.ll
State University of New York at Albany
Hervey A. Juris
Leslie Nathanson
Kathryn Tooredman
Margaret Zacharias
Northwestern University

Prepared for the American Educational Research Association Meeting

April, 1979

EA 012 070

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

A. Cressmell

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Introduction

This study is concerned with the interaction between budgetmaking and collective bargaining in school systems.[1] Two questions guide the work: how does the overall process of labor-management relations fit into resource allocation decisionmaking, and how can the resource allocation decisionmaking process be studied to provide the most useful and valid data about the interaction with labor-management relations? We adapted ethnoscientific methods to conduct detailed interviews in nine school systems. These interviews were then analyzed to produce sequential descriptions of the budget and bargaining processes (called verbal action plans) and perceptions of the decisionmakers.

The methods were designed to produce a clear description of resource allocation and labor-management relations in both behavioral and conceptual terms. We examined how events in the two processes correspond in terms of timing and sequence, who participates in and influences both processes, and how decisionmaking structure and environment condition actions. This description provides the base for tentative generalizations about power, and constraints in the budget process.

BACKGROUND

An examination of the interaction between the somewhat separate budgeting and bargaining systems requires a unifying frame of reference. The concept of an interaction is central to that. By an interaction we mean a difference in one decision process (e.g., budgeting), which is attributable to some element or change in the other (e.g., bargaining). Since our focus is on the process, the differences to be interpreted as interactions are defined in terms of elements of that process, specifically the participants, the structures and decision criteria, the sequence of decisions, mechanisms of influence, and constraints. These elements are

[1]This research was supported by grants from the Spencer Foundation and the Ford Foundation. The authors alone are responsible for the content.

the basis on which the descriptions of the budget and bargaining process are built. Interactions will then be discussed through an examination of the way the elements in one of the process seem to impact the other.

The attribution of impacts or interactions is based on Cresswell and Murphy's (1979) descriptive system of governance processes and the mechanism of the exercise of power based on Deutsch (1966), Pfeffer (1977), French and Raven (1959), and Wildavsky (1974). Cresswell and Murphy describe the governance system of the organization, i.e., the mechanisms through which control of operation is exercised, in terms of three main modes: (1) political, (2) professional, and (3) bargained. Decisions about resource allocation can be made in any one or mixture of the modes, depending on the power relationships and organizational structures of the organization. The modes are distinguished by the participants, structures, and decision criteria, as follows:

1) Political - participants defined by governmentally defined role or interest group, structure of governmental deliberation and arena politics, decision criteria, balance of interests, and accomodation of conflicting interests.

2) Professional - participants defined in terms of organizational roles (jobs and authority), formal bureaucratic decision structure of the organization, decision criteria objective good of the clients, and optimization of outputs in educational terms.

3) Bargained - participants defined in terms of labor-management divisions, structure of bargaining and contract administration, decision criteria, balance of bargaining interests and maintenance of the bargaining relationship.

Budgetmaking and salary determination may be conducted in any one or mix

---

of these modes. Actors would seek an advantageous mode (Pfeffer, 1977; Wildavsky, 1975) because differences in their structures, patterns of participation, and criteria would affect the power relationships among the actors in the decision process. The differences in power should then be reflected in the sequence of decisions, the constraints imposed and, ultimately, the decision outcomes. These are the terms in which the interactions will be discussed.

The actual exercise of power in the decision process should, therefore, be reflected in the modes of decisionmaking and the sequences and constraints observed. To make inferences about power, however, it is necessary to distinguish between the objects or manifestation of power and the mechanisms of its exercise. Deutsch's (1966) definition of power illustrates its object or manifestation: "power is the ability to act out a particular preference in behavior or, to reach a particular goal, with the least loss of ability to choose a different behavior, or to seek a different goal." (p. 248) This is what the exercise of power produces, but does not say how. French and Raven's (1959) description of the bases of power shows the mechanisms. They include authority (legitimate power), ability to reward and punish, expertise, control of information, and friendship. These are the means of exercise of power in the systems of interest to us.

The different modes would be expected to provide differential amounts of power because each has different arrangement of the mechanisms of power in French and Raven's terms. For example, the professional mode involves dominant legitimate power to the administration, as well as a place for teachers as professionals to exercise expertise and control of information. The bargaining mode, by contrast, de-emphasizes the professional expertise of the administration while increasing the potential

for the teachers to allocate rewards and punishments. We would expect, then, to have the relative power of the actors in budgetmaking and bargaining to be reflected in the mode of decisionmaking, and in turn reflected in how decisions are made and how constraints are imposed.

This approach differs from other studies of budgetmaking such as Selancik and Pfeffer (1974), Hills and Mahoney (1978), Wildavsky (1974), or Gervin (1969) who examined only one setting. There, the mode of decisionmaking may not shift much from cycle to cycle, or adequately reflect the possibilities for the exercise of power. The differences in mode of decisionmaking we discuss above are much more adequately reflected in Danziger's (1978) study of municipal budgeting, where structural and procedural differences were evident. An examination of budgeting and bargaining interactions in these terms requires, therefore, a multi-site design with detailed information about the decision process, participants, and opportunity for the exercise of power.

Design

Participant observation would be the preferred approach to collect such detailed behavioral and perceptual data. But this is not feasible for a multi-site study of complex political processes such as resource allocation and budgetmaking. Therefore, we had to devise a feasible method for collecting such information; interviews were the obvious vehicle.[1]

---

[1] Behavioral observations over a long period of time would have yielded information about the process, but these were too costly. Another research objective also precluded this means. We were building the base for a scheduled interview instrument that could eventually be used in a very large sample of school districts. (See Cresswell et al. (1978.) Therefore, our team chose interviews as the main thrust of the research strategy. A number of writers have discussed the limitations of interviews (Sudman and Bradburn, 1974; Cannell and Kahn, 1968; Webb, Campbell, Schwarz, and Sechrest, 1966), but they are the most commonly used method of data collection in social science research. Interviews provide access to focal actors with knowledge about the process of interest, and permit efficient collection of data about activities through time.

However, there are significant methodological problems connected with the construction of an appropriate interview methods and means of analysis.

The central problems are those of reliability and accuracy; there is an extensive literature which suggests that they cannot be simultaneously maximized. These two criteria--accurate reporting of the truth and reliability across observations--lie at the opposite poles of a continuum, each requiring a different technique of data collection. Reliability is enhanced by a scheduled interview with closed-ended responses, while accuracy is enhanced by nonscheduled interviews with open-ended questions. We resolved this dilemma by using an adapted ethnographic approach. We were thus able to reduce or eliminate many sources of error implicit in ordinary interview techniques.

The Ethnographic Approach

The ethnographic approach is used to produce as detailed and complete a report as possible but reduce the possibility that our reporting would reflect an "academic" perspective which might differ from a "practitioner" perspective. Also, important aspects of the processes under study are as much conceptual as they are behavioral. Ethnographic methods deal with both concerns.

The interviews were based on the fundamental assumption of the ethnography: "the social scientist cannot understand human behavior without understanding the framework within which the subjects interpret their thoughts, feelings, actions. . . ." (Wilson, 1977, p. 249, his emphasis). Ethnographers have traditionally achieved this understanding through complete immersion in the social system of interest, gathering data through observation, study of language, and interviews with culture members.

But this risks bias due to the ethnographer's organization of data into his own culturally-defined categories. This risk becomes more acute as ethnographic methods are applied by researchers within their own cultures, where it is easier to assume common meaning and most difficult to discover when such an assumption has been incorrect (Spradley and McCurdy, 1972). Particularly when the total immersion characteristic of ethnography is lacking, the only way to guard against such a bias is to obtain valid information about the conceptual categories of culture members.

We employed a special type of ethnographic approach called ethnoscience to resolve these problems.[1] Ethnoscience ethnography is based on the postulate that knowledge is accessible through language. The techniques designed to elicit the conceptual knowledge of culture members with minimal distortion of its natural structure. Our research strategy incorporated some of these techniques. The cultural experts we interviewed--superintendents and business managers--were our guides through complex conceptual processes. The ethnoscientific approach assisted us in developing a wholistic, practitioner-based perspective on the resource allocation process, previously lacking in the literature.

Interview Design

The ethnographic approach alone was not, however, sufficient to ensure the most accurate and appropriate data. It was also necessary to

[1]Further information about the theory and method of ethnoscience is available in several sources. Spradley and McCurdy's The Cultural Experience introduces the fundamental concepts, and includes examples of applications by researchers in their own cultures. Werner et al., Handbook of Ethnoscience is invaluable for ethnographic work in any setting. The linguistic laws and theories which justify claims for validity and reliability of ethnoscientific techniques are discussed in Werner and Fenton, (1970); Chafe, (1965); and Frake, (1962).

consider the different types of interviews, and their empirically demonstrated characteristics, to determine the best approach. For our purposes, the preferred method was the standardized, nonscheduled interview.

Interviews can be characterized as standardized and non-standardized (Richardson, Dohrenwend, and Klein, 1965). The true non-standardized interview is a unique case; it cannot be used as a basis for comparison or generalization. The non-standardized interview may be accurate, but is not reliable. A standardized interview can achieve varying degrees of accuracy or reliability, depending upon its format and its questions. The format of a standardized interview may be nonscheduled or scheduled, its questions may be open-ended or closed-ended.

In nonscheduled interviews, the interviewer is familiar enough with the categories of information sought, and the characteristics of the respondents, to formulate appropriate questions for each. Open-ended questions permit the respondent to give lengthy answers that can achieve great depth, specificity and clarity, and to use his/her own vocabulary and syntax. Interviewer discretion in questioning and respondent freedom in answering lead to an increase in the accuracy of interview data.

However, interviewer discretion in manipulating and recording open-ended questions lead to interviewer error, thus lower interview reliability (Maccoby and Maccoby, 1954). But, reduction of interviewer error by scheduling interviews using closed-ended questions will result in inflexible and formal interview formats. The same wording may not have the same meaning for all respondents. The result is often inaccurate interview data.

Thus, any use of the interview as a research tool requires several choices, and each choice has advantages and disadvantages. The most common compromise in social science research has been the conduct of nonscheduled open-ended interviews to give the investigators a "feel for the territory,"

which then enables them to develop a scheduled, closed-ended interview instrument suitable for wide distribution and quantitative analysis.

There have been two major difficulties with this compromise. First, "a feel for the territory" does not systematically elicit information from the perspective of the culture being studied. And second, there is no systematic methodology for moving from the unscheduled open-ended interviews to the scheduled, closed-ended instrument without dropping important insights and incorporating investigator bias.

The present study sought to improve on this compromise by using a special type of nonscheduled open-ended interview, the ethnoscientific grand tour interview, as a first step in the design of a scheduled, closed-ended instrument. The grand tour question allows the practitioner to describe in his or her own words the sequence of events in a process with a minimum of interviewer interference. A complete transcription of the respondent's comments is then analyzed. This analysis for the conceptual relationship of sequence results in graphic verbal action plans. The conceptual relationship described here has demonstrated cross-cultural validity and the linguistic principales on which coding techniques are based have very high intercoder reliability. (See attached examples of verbal action plans.)

In our study, we asked the grand tour questions of superintendents and business managers. The questions asked were about time, as recommended by Werner et al (1978). Consultants were told at the beginning of the interview that we were interested in budgetmaking and collective bargaining, then asked the following grand tour questions:

1. Please describe the budget process from the beginning to the time you take it to the school board for approval.

2. Please describe the negotiation process from the beginning to the time the agreement is formally approved.

3. Please describe how you monitor the budget after it has been approved by the school board.

Interviewers intervened in the consultant's narrative only when clarification was necessary or when a consultant wandered far from the focal topics. With the exception of one district, in which the superintendent refused permission, each grand tour interview was recorded on cassettes and transcribed in full.

Research Sites

Nine local school districts were selected as interview sites from Cook County and the 12 surrounding counties. We wanted to study urban, suburban, and rural districts. The sample was selected to include districts which represented a mixture of fiscal and political contexts, according to dimensions of size, type, wealth, and union conditions.[1]

Size--1800 pupils (average daily attendance). Four of the districts are smaller and five are larger.

Type--There are four types of districts which are present in Illinois: (1) N-8, (2) K-8, (3) K-12, and (4) 9-12. All are represented in our sample.

Wealth--Five wealthy districts (over $40,000 assessed valuation per pupil) and four poor districts (under $30,000 assessed valuation per pupil) were selected.

Union Conditions--Five of our sample have a union and four do not.

---

[1] Data on size, type, and wealth come from the Illinois Office of Education 1974-1975 Annual Financial Report on Illinois School Districts.

FINDINGS

Resource Allocation Process

The general nature of the complex decision process we studied is described in terms of the specific decisions and actions taken by the participants. The decisions and actions which make up the resource allocation process fall into two main categories, revenue decisions and expenditure decisions. This is a distinction which flows from the formal organization of the laws and literature, and we found it to be fundamental to the practitioner perspective as well.

The central revenue decisions were:

1) choices about what estimates to use of the anticipated state revenue

2) choices about what level of local taxes to estimate, levy, or attempt to levy

3) choices about which Federal or state revenue programs to pursue[1]

The central expenditure decisions were:

1) decisions to retain, add, or delete large elements of the school operation; such as adding an experimental math program or closing a school building

2) decisions about the salary level and number of teachers to be accepted as the base from which negotiations or related management decisions proceed

3) decisions about the amount of non-salary dollars to be allotted to programs and operating units (buildings, departments) as their normal or expected operating resources

4) decisions about the amount to be added to the salary and wage bill base as a result of negotiations or administrative decisions to grant raises or improvements in working conditions which impact the budget (e.g., smaller classes).

---

[1]Federal and state revenue decisions consist almost wholly of categorical programs. Since these funds are specifically allocated, they are not subject of importance here.

All of the school systems we studied build their budgetmaking processes around the seven main types of choices described here. But there are many variations in the sequence and timing of these decisions, who is involved, what activities take place as part of the decision process, and what interactions among decisions occur. These variations are accounted for in part by the decision setting in which school systems operate.

Decision setting

In Illinois, as in most other states, the content of revenue and expenditure decisions is bounded by both state and local constraints. These constraints affect both the discretion and uncertainty for school decisionmakers.

State Setting and Discretion. Statutory guidelines for labor-management relations and resource allocation or, rather, their absence mean that a great deal of discretion is left to local school officials.

There is no statute in Illinois regulating the relationship between public employers and employees. The absence of a legal structure for bargaining in Illinois means that there is no legal requirement for local school administrators to share resource allocation decisions with teachers. The establishment of joint decision processes is left to the discretion of local school management and to the relative power of management and teachers.

Similarly, the School Code and related law in Illinois provide little in the way of detailed procedures or guidelines for resource allocation decisionmaking in school systems.[1] Some structure is provided in three

[1] This discussion applies to all school districts in Illinois except Chicago. A separate section of the Code applies to that city. Since our study did not include Chicago, that section is not included here.

areas: legal deadlines, rules about local tax limits, and revenue formulas.[1] As long as administrators attend to these deadlines and rules, any decision procedure, pattern, or sequence may be chosen. Budget and tax decisions are not subject to review by any other local government since, in Illinois, school districts are fiscally independent special governments.

State Setting and Uncertainty. The Illinois state decision setting also creates elements of uncertainty for local decisionmakers. The total amount of state funds to be allocated by formula to local school districts in any fiscal year is determined by the total appropriation provided by the General Assembly. This appropriation is not usually known until late spring or summer; sometimes the final appropriation is not known until fall. School systems are thus forced to budget on the basis of estimated state revenue rather than what is actually appropriated by the legislature.

Local Setting and Uncertainty. In addition to uncertainty from the state setting, there are local sources which add to the decision problem. For example, enrollment may fluctuate, referenda may be defeated, and deficit spending may be vetoed. The local tax base may change. Unions may be present or absent, strong or weak; they may vary their bargaining objectives from year to year. Community groups can suddenly press demands upon the administration. Each school board must develop a decision process that takes these local variables into account in order to produce a budget for school operations.

Because there is so much discretion and uncertainty built into the decision setting, one would expect decision processes to reflect a variety of responses. We found this to be true.

---

[1] For a complete description of the operation and background of these finance formulas see: Hickrod and Hubbard (1978).

Variance in Revenue Decisions

The amount received by a school district from state sources is, by and large, not subject to direct influence by that school district. Over 90 per cent of revenues from state sources come as general purpose grants allocated by formula established by the legislature and limited by the size of the appropriation approved by the Governor. A very large district, such as Chicago, may be able to influence its appropriation to some degree. But for almost all districts in the state, including all in our sample, there is no direct impact on state aid amounts. The districts do have some influence over special purpose grants, such as innovative programs, etc., which are funded through proposals. But in none of the districts we studied were these substantial parts of the budget and are therefore ignored.

Thus the school district does not decide the actual amount of state funds it will receive; it chooses the estimate to be used in the budget calculations. The state aid estimate goes into the calculation of the total amount available for budgeting and bargaining. The estimate is therefore part of the overall budget constraint. The real amount of revenue is unknown, but not manipulable. The estimate is known, but manipulable. The participants in the budget process know that manipulation is possible, therefore they may or may not accept the estimate as accurate, and agree to work within the constraint; this varies from district to district. However, whether or not they accept the overall constraint seems to be a matter of the credibility of the total revenue projection, not just the way state aid is calculated. This is considered after we examine the local revenue projection process.

It is useful to note at this point, however, that there were substantial variations in the local resources available for predicting

revenues from the state. For instance, one district had a business official who had worked in the state office which calculated appropriations for the legislature. He used his contacts in that office to keep informed of the latest information coming from the legislature in the spring budget season. Other districts used rules of thumb which were based on past experience to estimate state appropriations. In the smaller districts these estimates were made by a superintendent working alone or with a bookkeeper. One district hired a part-time "financial advisor" for the same purpose. However, the apparent credibility of the estimates did not seem to vary with the professional qualifications of the estimator. The most important factor was the record of past behavior in producing accurate estimates.

It was in the area of choices about the amount of local revenue to estimate, levy, or attempt to levy, that we found the widest variation in the way decisionmakers viewed their environment and the limits on their discretion. The structural features of the environment were the same for all districts. Each school board may levy taxes for current expenditures up to the tax rate ceiling fixed by local referendum.[1] For each budget cycle the basic choices involve whether to view that ceiling as a constraint. In our sample, only four of the nine treated that ceiling as the operative limit on expenditure. Three districts exceeded that limit by deficit financing. The rest levied taxes below the full amount available. In short, something beyond the tax rate ceiling operates as a decisionmaking constraint in these districts.

---

[1]The school code provides much lower tax rate ceilings for districts which have held no local referendum. All the districts in our sample had a long history of local referenda to increase the tax rate ceiling.

Four factors emerged as important elements in that decision process. In deciding how much locally raised revenue was available for budget-making, the boards and administrators based the decision on a balancing of these factors:

1. perception of the tax rate resistance point of the school voters
2. preferences or aversion to deficit spending
3. current v. future needs
4. standing of the school system in terms of salaries, expenditures, and program offerings in a selected reference group

There was a great deal of consistence among the respondents on the importance of these factors in the decisionmaking about total revenue. They had some place in the decisionmaking in all cases.

The relative weights assigned did vary, however. The weights did not coincide with any pattern of environmental characteristics. They seemed rather to reflect the individual preferences of the board members and administrators and local political culture. The salience of political symbols, such as "no deficits" or "fair wages for teachers" was more a reflection of the past patterns of action. In one district, deficit spending was justified in terms of giving the teachers a fair wage in terms of salaries in surrounding districts. In another, the board said flatly that there would be no deficit spending, and the school officials and union accepted that as a firm constraint. In a third district, the amount budgeted was less than the district was entitled to levy--i.e., they were well below their taxing limit. But it was all the board felt it could give, taking into account their desire to protect the amount of taxing leeway remaining so as to have discretion in future budget increases. That is, they did not want to use up all of their tax rate maneuvering

room in one year.

In each case, the school officials believed they had spent up to their "budget constraint." But each defined the concept differently. In fact, it is our observation that a "budget constraint" may be whatever the actors believe it is. Thus we conclude that there may be no such thing as an objective budget constraint for local revenues. A limit on local revenues is pegged to whatever political symbol or set of symbols are salient for that context.

The intriguing question which remains from this finding is how to identify what constitutes a constraint in budgetmaking. On close examination of the behavior of the decisionmakers in this sample, a number of behaviorally or conceptually different constraints emerge. And it also became clear that not all budget decisions could be easily described or explained in terms of constraints alone. However, there was, we found, an interaction between the revenue and expenditure decisions in terms of sequence and constraints. Therefore we will take up the full discussion of the operations of constraints after an overview of the expenditure decision process.

Expenditure Decisions

Programs and Facilities. The connection between programs and facilities decisionmaking and formal budgetmaking varies from district to district. We found patterns involving the formality of the procedures, timing of the procedures relative to one another, and congruence of participants in each of the different procedures within districts.

With respect to formality, districts exhibited one of the three patterns:

1) highly structured procedures for curriculum revision, separate in time and decisionmaking structure and participants from budgetmaking.

2) a formal program review and revision procedure integrated with budgetmaking

3) informal reviews and revisions which take place as part of preparing budgets, especially when program decisions have financial impacts

Formal procedures include committees with specific functions, planned hearings, meetings, and deadlines. Informal styles of decisionmaking were characterized by fewer participants and more centralization. In informal districts, the Superintendent or central office staff initiated contacts and were the center of activity.

In most districts studied, program decisions which have budget implications are at least partially integrated in terms of time and participants with other budget decisions, allowing tradeoffs to occur.

Salary and Wage Bill Base. We found two general approaches to how the base for the cost of labor was determined. In conditions of stable or increasing enrollment the board usually took the existing salary and number of staff as the base and budgeted a somewhat smaller increase than they expected to give. If a larger amount was then negotiated, the difference would come from a contigency fund or some other part of the budget where funds were concealed or otherwise available. In conditions of enrollment decline the practice was to dismiss at least as many teachers as necessary to keep teacher/pupil ratios roughly stable and then hire back as many as possible when the salary negotiations or other parts of the budget process are complete. In either case, the basic board strategy appears to be one of making early staffing decisions so as to preserve some discretion in later budgetmaking and negotiations.

The timing required by law and practice causes staffing decisions to become a partial constraint on later budget and negotiation decisions. But there is enough flexibility in the procedures for the management to leave some maneuvering room, if they plan according, and are willing to

dismiss and hire back. The current over-supply of teachers makes this a possible, if disruptive tactic.

Non-Salary Budget Base. This was the portion of budgetmaking which the respondents tended to consider as the heart of the process, even though it involves little more than one fifth of the total. In all districts studied there was a procedure for feeding requests for non-salary expenditures, e.g., supplies and equipment, into a central decision location. In less formal districts the superintendent met with principals and other administrators to gather staff requests and reconcile conflicts. In more formal processes there were structure for soliciting requests from staff and feeding them through intermediate levels of decision up to the Superintendent and/or business official. In either case, there seems to be little concern at the central administrative level over the substance of these expenditures. The attention is to total amount and distribution of fair share among actors.

This portion of the budget seems to be the most clearly incremental in nature. In most cases instructional supplies of a routine sort were allocated among operating units on a formula basis (dollars per pupil), or some proportional increment over the previous year. Past expenditure levels are uniformly taken as the starting point for the current year. There is plainly an investment in a particular technology and a distinct expectation among the staff that there will be no more than small changes. The current level of expenditures for most areas can be viewed as a functional constraint on the budget decisionmaker. The fact that decisions were not described as particularly problematic suggests that this is a well established principle that is generally honored.

Salary and Wage Bill Increments. This section of the budget is subject to negotiation between board and employee groups, if negotiation is

established in the district. The negotiations may include other decisions about working conditions and administration which have budget impacts, but they were not reported as important by our consultants. Thus, we concentrate here on how changes in the amount paid for labor enters into the overall budget decisionmaking.

The central question is simply: which comes first, the bargain or the budget? That is, do schools set a budget constraint and negotiate within it; or negotiate, and then find the money to pay for whatever was negotiated? We found both approaches and some that do not clearly fit either. Three of the unionized districts studied had the expertise to closely estimate the amount of an appropriate salary settlement and the bargaining power to make sure that the final outcome was very close to that amount. These were all districts with relatively high expenditure, local wealth, and salary levels compared to neighboring districts, and were generally desirable places to teach. In these districts the negotiations seem to operate closely within a budget constraint, but the constraint was not imposed from external economic circumstances as much as by internal decisions by the board and administrators about what was a proper settlement.

The board and management were able to exercise the same type of control in three other districts, each fairly small, none with a strong employee union. In these districts the management was able to settle the salary and benefits questions early in the budget process and enforce these decisions in the remainder of the resource allocation process. However, none of these were particularly rich (in terms of property value) or desirable places to teach. Two of the districts were in deficit financing. In all three the management reported trying to determine a "fair"

wage, fair in terms of offerings in comparable districts. The board was willing to finance it. It was clear, however, it was the management perception of what wage was necessary or fair, and the management revenue constraint, even though a deficit, was the controlling one.

In another large district, management was able to impose a firm constraint on the overall budget, but the union was able to force the administration to make the salary and other budget tradeoffs. That is, budget and bargaining occurred simultaneously, so that the budget could be adjusted to reflect agreements made at the bargaining table.

In two other unionized districts, the boards attempted to set a budget limit as part of the budget negotiations process, but the limit did not stand up to the pressure of negotiations. The overall size of the budget was increased as a result of wage and benefit settlements negotiated late in the summer and early fall. In these cases the budget and bargaining decisions were made most interactively. The process described was one of close communication between the two processes, with the same key actors involved in both--usually the superintendent or business official. An examination of the verbal action plans showed the final decision process in those cases to be essentially merged. Decisions made on one side would be used to adjust on the other, and vice versa. It is not possible to say which decision or set of decisions was made first or operated as a constraint on the others.

Taking these and related observation together we constructed a general description of the interaction between the budget and bargaining (or salary determination) process. (Figure II) By interaction we mean when a decision

* * * Figure II here * * *

in one area (e.g., budgetmaking) constrains or causes a change in the other (e.g., salary determination). We observed three patterns of interaction in the districts in our sample. The fit is not complete; not all districts exhibited or shared all of the characteristics or details. But the overall fit was sufficient to allow some considerable confidence in the generality of the basic pattern.

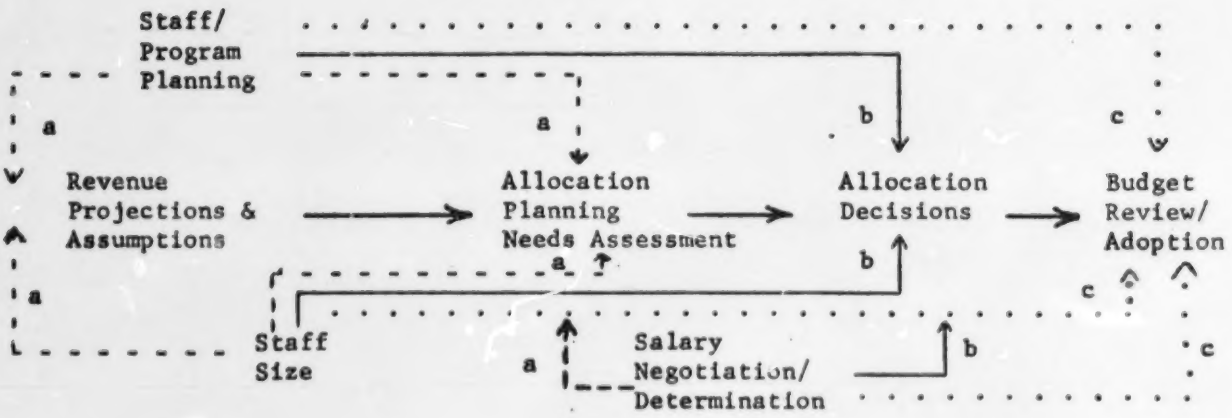
Professional Dominance

In the pattern designated a. (Figure II), the processes of administrative control and planning dominated both the budget and salary determination process. Four non-union districts fit this pattern. In these districts the sequence of decisionmaking allowed the staff size (class size) and basic program decisions to be made quite early in the planning cycle, as early as late fall and early winter for some decisions. In these cases the board and administration determined what they considered a fair salary/compensation package for the employees. This was done in consultation with the teachers, but without anything which could be accurately described as negotiations. Once the salary determination process was complete, those figures were employed by the board in constructing the remainder of the allocations involving supplies, etc. In that sense, the salary decision operated as constraints on the subsequent allocation decisions.

However, on closer examination it is clear that the salary decisions were themselves constrained by the board/administration projections of the level of funds to be set aside for the other categories of expenditures. The phrase,

Figure II

Alternative Patterns of Budget and Bargaining Interactions



a. Planning/Administration Control Dominates (--------)

b. Negotiated/Budget Process Dominant (————)

c. Simultaneous Determination (. . . . .)

"what we could afford for the teachers" was used several times to describe the basis on which the early salary determination decision was based. In operation, this meant projections for the other categories of expenditures were made in an incremental manner, taking into account revenue projections. What could be "afforded" for the teachers was in fact the amount determined by the board and administration which could fit into their projections of revenue and expenditures for other purposes. No single set of decision rules controlled this process. But the pattern was similar to:

1. compare salaries to a reference group of districts, as determined by the administration. Reference groups seemed to be stable and reflect a judgment of comparability on wealth, size, and demographic makeup.
2. determine a salary increase consistent with past increases and fitting with what is given elsewhere.
3. test the consequences of the increase for fit with preferences for other expenditures and prior program decisions.
4. adjust salary and other expenditures to fit revenue available.

That is to say, the trade-offs, real or potential, between salaries/compensation and other expenditures were made in a process controlled by the administration and done early in the overall sequence of decisions. In general, universalistic criteria were used in this process, such as a fair share to the teachers, parity among buildings and/or programs in distribution of increments, and new programs or activities decided through professional (bureaucratic) means. References to the power or influence mechanism of participants in the process was not a component of the description.

Mixed Mode - Budget Dominance

Power and negotiations were a much more important aspect of the decision sequence in the pattern designated b. (Figure II). Three districts, all with

teacher unions, fit largely into this pattern. The pattern is best characterized as one in which there is a mix of professional (bureaucratic) decisionmaking in the budget process and negotiations among powerful subunits, particularly the teachers. It is distinct from pattern c. in that in these cases the budget or professionalized decision process appear to dominate the overall decision process. In these districts there was also early decisionmaking on staff size, salary projections, and program changes. However, there were clear mechanisms for the teacher organization to participate as an organization in these steps. There was also some evidence of teacher's partial rejection or at least dispute of the board/administration definition of available revenue.

The evidence for budget process dominance in these districts lies in the sequence in which decisions were finalized. In these cases negotiations over salary/compensation were going on simultaneously with the budget determination. But the budget was settled first, with negotiations expected to fit within the parameters so established. There might have been a small amount of give in the budget figures decided (e.g., from a "contingency" fund), but the amount was relatively small. In short, the budget decision acted as a constraint by virtue of the sequence of decisions.

In two cases, there was also a system of program planning/decisionmaking which began in advance of the budget cycle and negotiations. These were formal decisionmaking processes designed to deal with the substance of program content, staffing and curriculum organization as well as budget implications of these decisions. The processes involved teaching staff and in one case school clients and members of the community. It was practice in both these systems for major program decisions, i.e., adding or deleting activities or changing content, to be made before either the budget process or negotiations were fully under way. Thus major changes in programming were isolated from these later process; the program decisions were made in a thoroughly professional mode via a structure designed and controlled by the board and administration. Decisions about

staffing and instructional expenditures were considered as constraints, i.e., not subject to significant modifications on the later budget cycle or negotiations process. This early decision process did not review the entire program; it dealt only with specific changes. Thus the decisions made therein set aside certain amounts and program areas as decided. The earlier decisions were constraints on later ones in the formal budget and negotiations process.

Simultaneous Decisionmaking

In three of the districts examined, the final decisions on total revenue, major expenditures, staffing, and compensation were delayed until late in the summer or early fall. These decisions were then made, during negotiations years, at roughly the same time./ (mode C, Figure 2) It was not possible, taking the post hoc reports of the participants, to clearly establish any sequence. One set of decisions did not necessarily constrain the others. In fact, the decision was more often described as a series of iterations wherein the prior revenue decision might be adjusted to reflect a salary concession, or a budget category adjusted to reflect a better revenue estimate, and so forth.

By providing for virtual simultaneity in these decisions, the decisionmakers allowed the maximum opportunity for interaction. That is, choices or changes in the salary/compensation negotiations could be reflected easily and quickly in the budget and vice versa. Commitments were delayed until the last possible time and consequently allocations remained fluid. Several of the responses reported that in these situations little or no progress was observed in the negotiations until late in the process. And on the budget side, the final approval of the budget remains suspended until the negotiations are complete or nearly so. A "package" is worked out which reflects the balancing of the competing demands on resources; the full knowledge of the trade-offs involved is hidden until the package is complete.

The districts reflecting this pattern all included apparently strong teacher unions. One of the teacher union locals has been consistently referred to by outside observers as one of the strongest in the state. The other two had a substantial history of militant activity and involvement in budgeting and other board decision processes.

Discussion

The central question guiding this inquiry has been: How do salary determination and budgetmaking processes interact in school systems? We have found that they interact in three distinct ways. There is a professionalized or bureaucratic mode in which the decisions on staffing, programs, and revenue are made early by management and constrain the salary determination process. A second mode is characterized by negotiations and coalition activities. The processes of budgetmaking and salary negotiations proceed simultaneously in the early stages. Employee organizations participate in the budget process. But the management-controlled budget limits are still established before the final salary decisions are made. The salary negotiations appear to influence the budget in this second mode, but more in the early stages of revenue estimation and preliminary planning; the budget decisions still constrain negotiations at the end. In the third mode the interactions continue until a deadline or decision point is reached; then the major budget, staff, and wage decisions are made together. Employee unions have an active role in the process through the cycle. The main distinctions among the modes are the structure in which decisions are made--professional or negotiated--and in the sequence of decisions, with early budget decisions constraining later salary decisions.

These patterns are understandable if thought of as manifestations of the relative power of the employee groups. The professional approach is incremental, guided by rational criteria, and reflects the cognitive limits of the management

decisionmakers. The details of the process are determined and controlled by the main actor, the school board/administration. There appears to be such a power discrepancy between the management and the employee organizations that the organizations are unable to have any major impact on the conduct of the main resource allocation decisions. Thus there is no sharing of power sufficient to allow or provide for coalitional behavior to emerge. Contrary to Hills and Mahoney and other findings, the emergence of coalitions modes of budgeting is not a consequence of the scarcity of resources in the decision environment. In the schools in this type, there was considerable range in the apparent availability of tax revenues. The key determinant of bureaucratic processes or operation in the professional mode is the relatively higher power of the board.

This is consistent with the distinction among the modes of governance described above. An actor will choose, to the degree it can, to have decisions occur in the mode where its power is greatest. Traditional school authority patterns and legal structures place the great majority of the power in the management side in professional (bureaucratic) mode decisions. Thus management has the ability, by virtue of formal authority, to control most of the mechanisms through which the employees participate in the decision process of the system, form committees, advisory councils, or, in Illinois, negotiate. It seems to be in management's interest to have many possible resource allocation decisions made in a sequence and structure controlled by management. When these decisions are made early in the budget cycle, before negotiations are settled, they can become constraints on later ones.

Labor would prefer to have as many as possible resource allocation decisions made at the bargaining table, and at roughly the same time. Tradeoffs might be made in the union's favor at that time, while the power of the

employees' organization to affect decision is greatest. Thus budget totals and salary settlements can be made simultaneously at the bargaining table reflecting the union's relatively high power.

Examining the patterns of interactions in this way provides a new and more useful approach to the understanding of the manifestation of power in resource allocation decisions. In terms of Danziger's typology (above) the focus of our explanation is on the reasons for an allocation process (as opposed to the causes of the allocations themselves). Existing approaches to this understanding do not deal with the process in the same way. Contrasting bureaucratic (professional) with coalitional (political) models, such as Salancik and Pffer (1974) and Hills and Mahoney (1978), does not fit the data very well. We found what could best be described as mixed bureaucratic and political processes. They are not alternatives in the best sense, they are components of an overall process. What Danziger (1978) calls the cognitive limits approach, as exemplified by the studies of Wildavsky (1974) and by Crecine (1969) and Gerwin (1969), provide a descriptive frame of reference. The incremental nature of the process, the use of universalistic criteria and the overall sequence of decisions that they describe are reflected in these findings also. The interpersonal relationships among the participants in the process are an important element in the structure of the processes we found. But the problem solving frame of reference as presented in the body of cognitive limits theory is insufficient to deal with the importance of sequence, feedback, and constraints we found. These elements of the process provide a way of describing and explaining how the exercise of power and the interactions among types of decisions is reflected in the behavior of the decisionmakers and the structural characteristics of the process.

In short, all of the budget and salary negotiations process we

studied shared the same need to solve complex problems of allocation through the exercise of power and the resolution of conflict. But the same functional requisites were handled much differently in the three types of processes we observed. There is no single, required decision process. A number of approaches seem to be considered legitimate. It seems that the process that in fact emerges is a consequence, in large part at least, of the relative power among the main participants. Power is exercised, however, not in open confrontations but in the choice of structures and sequences for decisions and in the criteria on which decisions are based.

There was, of course, no independent measure of power in this study. The power to control the sequence and bases for decisions is invoked as an explanation for the patterns observed. In that sense it leads to some suggested hypotheses about the relationships between power and the patterns of decision-making in schools (or other public agencies).

1. Relatively high management power will lead to decision processes controlled by professional (bureaucratic) criteria and formal structures, with enforcement of decision sequences and determination of staffing and salaries early in the decision cycle.
2. Relatively high union power will lead to packaging of budget and salary/staffing decisions and resolution late in the decision process, while negotiations are in process.
3. Relatively balanced power between management and union will lead to high levels of participation by employees, management, and public in budget decisions. Management will attempt to use high levels of participation to reinforce early decisions and employees will attempt to influence the budget decisions through participation. In these cases the budget will usually dominate, due to the formal authority of the board in financial matters.

The ability to establish or identify constraints is central to the exercise of power in this frame of reference. So some final comments on the place of constraints in the process is in order.

Although they are seldom clearly defined in the budget literature, a constraint in that context usually means a limit to the amount of funds which can be allocated, in total or to a specific purpose. An understanding of where these limits come from and how they are enforced is central to the understanding of the exercise of power described above. We observed three sources of limits or constraints in this work:

1. Rules, such as tax rate limits or accounting regulations for how funds may be spent. These are usually very clear limits imposed on the decision system by a higher (usually state) authority. The enforcement system for the limits is typically the fear or actuality of litigation or legal sanction.
2. Environmental constraints, the limits, as perceived by the decision-makers, of what the public will bear in the way of tax rates or levels or quality of services. Environmental constraints are invariably fuzzy, that is, their exact limit cannot be precisely known. It can only be estimated by subjective judgment in advance of a decision, or estimated from the reaction to a decision afterwards.
3. Investment preference constraint, that is, an unwillingness to commit resources to one use because they have been previously committed to another.

Each of these plays an important part in the decision process. However, rule constraints are generally well known and not subject to manipulation, therefore not part of the exercise of power. However, the latter two are more closely

related to that process.

Environmental constraints are fundamentally subjective. Therefore, any of the parties to competition over scarce resources can construct their own self-serving version of what "the traffic will bear." If one party can establish their view as the basis for decisions, they have obtained at least a potential advantage. In our study management was able to establish their view as the base for decisions in most cases, through control of the technical expertise and often through substantial candor and the establishment of trust in the honest of the figures presented. In no case was an employee union or any other actor able to establish their view as the base. The best any other actor could do was challenge the management view and offer alternatives.

Investment preference constraints were the main mechanism of management control in the budget decision process. If management was able to make allocations and insulate them from later adjustments, the amount of negotiating leeway later in the salary determination process was narrowed. Employee organizations, especially teacher organizations, were able to participate in the development of preferences, sometimes called goals or priorities. Thus they have some influence. But that influence is in a professional mode, governed in large part by the professional criteria. It is possible, of course, that teachers (or other employees) could influence these preferences in the direction of their own objectives. But we found little evidence of this type of influence.

By examining these decision processes, especially through ethnoscientific methods, we did find many other mechanisms and patterns of influence. The comparison of detailed reports of decision processes across sites provides a powerful tool for the improved understanding of these important elements of the operation of schools and other local governments.

BIBLIOGRAPHY

Boyd, William L. "Educational Policy-Making in Declining Suburban School Districts: Some Preliminary Findings." Paper presented at the annual meeting of the American Educational Research Association, Toronto, Ontario, March, 1978 (Mimeographed.)

Campbell, D. T., and Fiske, Donald W. "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix." Psychological Bulletin, March, 1959, 56 (2).

Cannell, Charles F., and Kahn, Robert L. "Interviewing." In G. Lindzey and E. Aronson (Eds.), The Handbook of Social Psychology. Reading, Mass.: Addison-Wesley, 1968.

Chafe, W. L. "Meaning in Language." American Anthropologist; Part 2, Formal Semantic Analysis, 1965, 67 (5).

Crecine, John P. "A Computer Simulation Model of Municipal Budgeting." Management Science 13 (1967),.786-815.

Cresswell, Anthony M., and Murphy, Michael J. Collective Bargaining in Education. Berkeley, Calif.: McCutchan, 1979 (in press).

Danziger, James N. Making Budgets: Public Resource Allocation. Beverly Hills, Calif.: Sage, 1978.

Deutsch, Karl W. The Nerves of Government. New York: The Free Press, 1966.

Frake, C. O. "The Ethnographic Study of Cognitive Systems." In T. Gladwin and W. C. Sturtevant (Eds.), Anthropology and Human Behavior. Washington, D. C.: Anthropological Society of Washington, 1962.

French, J. R. P., and Raven, B. H. "The Basis of Social Power." In D. Cartwright (Ed.), Studies in Social Power. Ann Arbor: University of Michigan Press, 1959.

Gerwin, Donald. "A Process Model of Budgeting in a Public School System." Management Science, March, 1969, 15 (7), 33-46.

Hickrod, G. Alan, and Hubbard, Ben C. The 1973 School Finance Reform in Illinois: Quo Jure? Quo Vadis? Normal, Illinois: Center for the Study of Educational Finance, Illinois State University, 1978.

Hills, Fredrick S., and Mahoney, Thomas A. "University Budgets and Organizational Decisionmaking." Administrative Science Quarterly. September, 1978, 23, 454-465.

Maccoby, Eleanor E., and Maccoby, Nathan. "The Interview: A Tool of Social Science." In Gardner Lindzey (Ed.), Handbook of Social Psychology, Cambridge: Addison-Wesley, 1954.

Pfeffer, Jeffrey. "Power and Resource Allocation in Organizations." In Barry M. Staw and Gerald R. Salancik (Eds.), New Directions in Organizational Behavior. Chicago: St. Clair Press, 1977.

Richardson, Stephen A., Dohrenwend, Barbara Snell, and Klein, David. Interviewing: Its Forms and Functions. New York: Basic Books, 1965.

Salancik, Gerald R., and Pfeffer, Jeffrey. "The Bases and Uses of Power in Organizational Decision Making: The Case of a University." Administrative Science Quarterly, 1974, 19, 453-473.

Spradley, James P., and McCurdy, David W. The Cultural Experience: Ethnography in Complex Society. Chicago: Science Research Associates, 1972.

Sudman, Seymour, and Bradburn, Norman M. Response Effects in Surveys: A Review and Synthesis. Chicago: National Opinion Research Center, 1974.

Webb, Eugene J., Campbell, Donald T., Schwartz, Richard D., and Sechrest, Lee. Unobtrusive Measures: Nonreactive Research in the Social Sciences. Chicago: Rand McNally, 1966.

Werner, Oswald, (Ed.), Handbook of Ethnoscience: Ethnographics and Encyclopedias. (3rd revised edition) Evanston, Ill.: Northwestern University Department of Anthropology, 1978.

Werner, Oswald, and Fenton, Joann. "Method and Theory in Ethnoscience or Ethnoepistimology." In Raoul, Naroll, and Ronald Cohen (Eds.), A Handbook of Method in Cultural Anthropology. Garden City, N.Y.: The Natural History Press, 1970.

Wildavsky, Aaron. Budgeting: A Comparative Theory of Budgetary Processes. Boston: Little Brown, 1975.

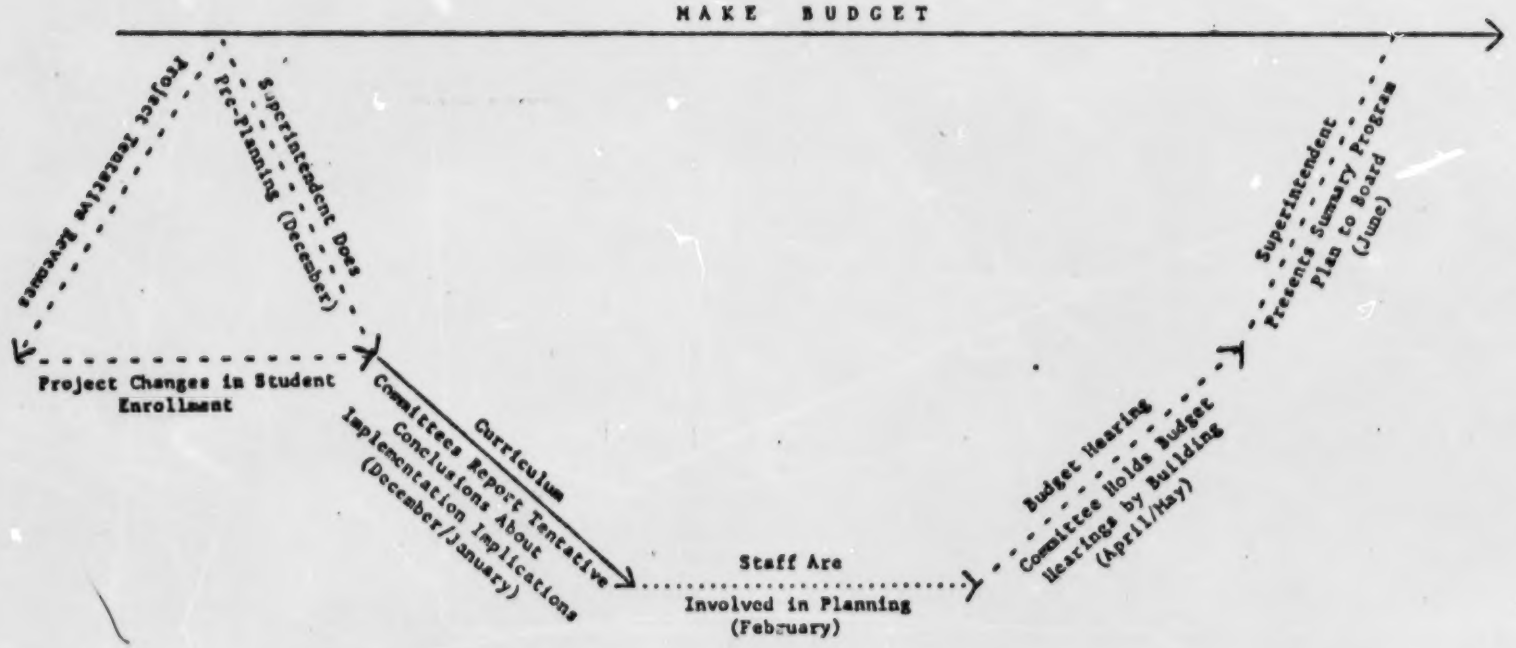
Wildavsky, Aaron. The Politics of the Budgetary Process (2nd ed.) Boston: Little Brown, 1974.

Wilson, Stephen. "The Use of Ethnographic Techniques in Educational Research." Review of Educational Research, Winter 1977.

Wirt, Frederick, and Kirst, Michael. The Political Web of American Schools. Boston: Little, Brown and Co., 1972.

FIGURE 1

VAP-SUPERINTENDENT


MAKE BUDGET
Project Teacher Needs
Pre-Planning (December)
Superintendent Does
Project Changes in Student Enrollment
Committees Report Tentative Conclusions About Curriculum Implementation Implications (December/January)
Staff Are Involved in Planning (February)
Budget Hearing Committee Holds Budget Hearings by Building (April/May)
Superintendent Presents Summary Program Plan to Board (June)

KEY:

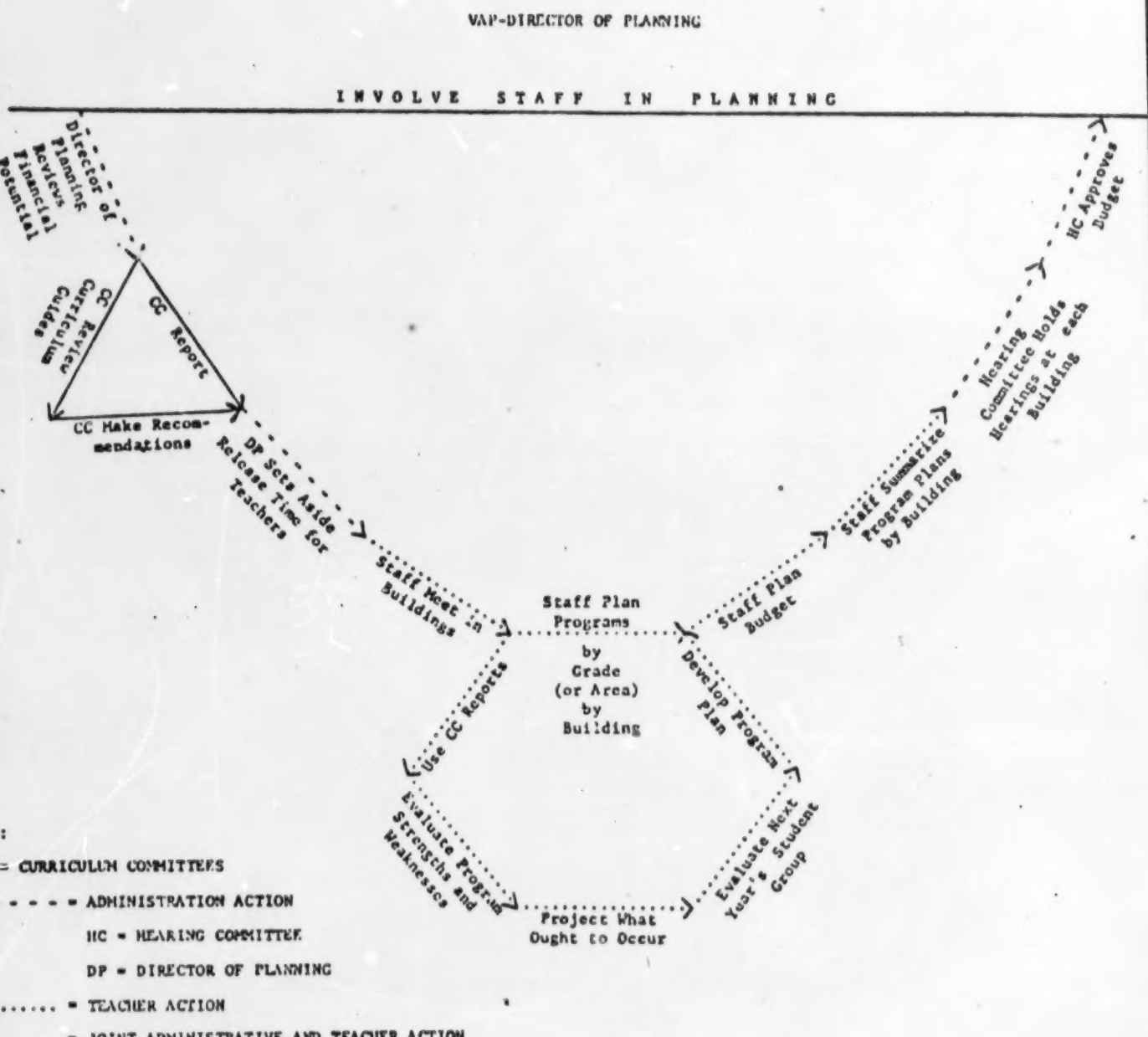
- - - - - = ADMINISTRATIVE ACTION

..... = TEACHER ACTION

_____ = JOINT ADMINISTRATIVE AND TEACHER ACTION

FIGURE 2

VAP-DIRECTOR OF PLANNING


INVOLVE STAFF IN PLANNING
Director of Planning Reviews Financial Potential
CC Review Curriculum Guides
CC Report
CC Make Recommendations
DP Sets Aside Release Time for Teachers
Staff Meet in Buildings
Staff Plan Programs by Grade (or Area) by Building
Staff Plan Budget
Staff Summarize Program Plans by Building
Hearing Committee Holds Hearings at each Building
HC Approves Budget
Use CC Reports
Develop Program Plan
Evaluate Program Strengths and Weaknesses
Evaluate Next Year's Student Group
Project What Ought to Occur
KEY:
CC = CURRICULUM COMMITTEES
- - - - - - = ADMINISTRATION ACTION
HC = HEARING COMMITTEE
DP = DIRECTOR OF PLANNING
..... = TEACHER ACTION
_____ = JOINT ADMINISTRATIVE AND TEACHER ACTION